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FLIGHTfax

Army Aviation Composite Risk Management Information

Tradition

"A Proud Tradition of Army Aviation"

PLUS: 2006 Aviation Safety Performance Review

U.S.ARMY

FLIGHTfax
Army Aviation Composite Risk Management Information

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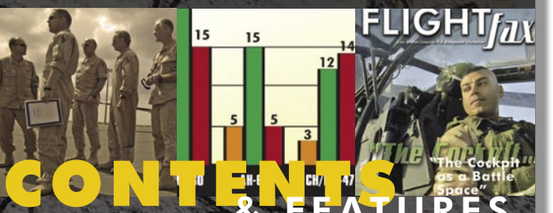

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U.S. ARMY COMBAT READINESS CENTER

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What's Ahead for FLIGHTfax?

PAULA ALLMAN
MANAGING EDITOR

Dear Readers:

In our committed effort to continuously improve the value of our safety magazines and better serve our Soldiers and Army members, you will see some changes in *Flightfax* in the near future.

The first change will start in January 2007 when *Flightfax* will be published bimonthly. But don't worry, you'll still be getting aviation safety features each month because *Flightfax* will be consolidated with our other two magazines, *Countermeasure* and *ImpaX*, into a single new monthly magazine called *Knowledge*. *Knowledge* will be the official safety magazine for the U.S. Army and will highlight safety features and information touching all career fields, ranks and missions. This consolidation will allow us to reach a larger audience of Soldiers than has been possible in the past. Don't worry about missing an issue. If you are already receiving *Flightfax*, you will automatically receive *Knowledge*.

Flightfax has served the aviation community as a valuable source of professional safety and aviation accident prevention information since September 1972. While we are consolidating our magazines to better meet your needs, we remain committed to you. We will continue to keep the aviation community informed through articles in *Knowledge* magazine, as well as bimonthly issues of *Flightfax*.

Both *Flightfax* and *Knowledge* will continue to provide the high standards of information you've come to expect from our publications. Both will be featured online and are open to your feedback. We're always looking to improve, and your feedback helps us to do that.

Your combat readiness remains our primary concern. As you transform to meet the challenges of the Global War on Terror, we too are transforming to better serve you.

Mission First, Safety Always!
Paula

DID YOU KNOW?

Flightfax has served the aviation community as a valuable source of professional safety and aviation accident prevention information since September 1972.

COMING SOON YOUR WAY

A PROUD TRADITION OF ARMY AVIATION

PAULA ALLMAN
MANAGING EDITOR

The Army Aviation Broken Wing Award was created in 1967 to recognize exceptional skill in recovering from potentially catastrophic in-flight emergencies.

Since that time, thousands of Broken Wing Awards have been presented to aviators and enlisted crewmembers whose extraordinary skill enabled recovery of an aircraft from an in-flight emergency. While their actions have prevented the loss of millions of dollars in equipment, far more important are the lives that have been saved. By their superior airmanship, these aircrew members have earned a place in the proud ranks of those who wear the Army Aviation Broken Wing Award.

FIRST STUDENT AVIATOR TO RECEIVE BROKEN WING AWARD

Whether it's the first-born child of eager parents, first-place winner in a sporting event, or first individual to accomplish a specific feat—first catches attention. And on Mar. 24,1969 after being sworn in as an aviation warrant officer, W01 Edward F. Ferguson, indeed, caught the attention of the aviation community when he became the first student aviator to receive the prestigious Broken Wing Aviation Safety Award.

On the night of Oct.16,1968, Ferguson, then a warrant officer candidate (WOC) was on the last leg of a solo cross-country flight under restricted visibility. During the return flight to Dempsey Army Heliport, Fort Wolters, TX, WOC Ferguson was flying a "buddy ride" with another student pilot. At altitude under normal cruise instrument settings, WOC Ferguson heard a loud noise, followed by engine roughness, severe vibrations, and extreme power loss.

Unable to keep sufficient engine power to maintain flight and with engine and rotor needles intermittently disengaging, WOC Ferguson entered autorotation, turned on the landing light, and selected the only available landing area—a small brush-covered area surrounded by tall trees. Maneuvering the aircraft by a series of S-turns, he autorotated and made a successful landing on a 6- to 7-degree slope. There was no damage to the aircraft, and neither pilot was injured.

Inspection revealed that the OH-23D had sustained a broken exhaust valve on the No. 6 cylinder. Making a successful night forced landing into such a difficult area under restricted visibility would have taxed the abilities of a seasoned aviator. WOC Ferguson had only 85 hours of training when this in-flight emergency occurred.

WEAR THEM WITH PRIDE

There's an old Army Aviation saying that "accidents are measured in inches and seconds." These people who wear the Army Broken Wing have proved that through training and skillful flying can stretch those few precious seconds and inches far enough to save their aircraft and the lives of the people they carry. Read on! ♦

More Aircrew Members Receive Broken Wings

CW4 JON STURNICK
U.S. ARMY COMBAT READINESS CENTER

The Broken Wing Award recognizes aircrew members who demonstrate a high degree of professional skill while recovering from an in-flight failure or malfunction requiring an emergency landing. Requirements for the award are listed in Army Regulation 672-74, *Army Accident Prevention Awards*. At a recent meeting, the Army Review Board approved the following awards.

CW4 EDWIN STEVEN COLEMAN
JOINT READINESS TRAINING CENTER FLIGHT DETACHMENT
MAY 18, 2006
OH-58C

While providing observer/controller support in an OH-58C aircraft at the Joint Readiness Training Center at Fort Polk, La., CW4 Coleman and CW2 Crook, a nonrated crewmember, were flying in support of JRTC rotation 06-07. CW4 Coleman was on the controls and flying at 400 feet above ground level and 40 to 45 knots indicated airspeed over a heavily wooded area when he heard the low rotor RPM audio. CW4 Coleman immediately cross-checked rotor and engine indications and determined the engine was ceasing to operate. At the same time, CW4 Coleman lowered the collective to maintain rotor RPM within allowable limits.

CW2 Crook began searching for a suitable landing area and transmitted mayday calls. Realizing there were no suitable landing areas to their front, CW4 Coleman managed rotor RPM by making an immediate right turn, gaining RPM in a 180-degree turn around an 80-foot tree while searching for a suitable forced landing area. Descending at 1,500 feet per minute, CW4 Coleman spotted the most suitable landing area beneath his aircraft to complete his autorotation.

At an altitude of about 150 feet AGL, the helicopter experienced a complete engine failure. CW4 Coleman continued to autorotate, weaving through 50-foot pine trees. CW2 Crook continued subsequent mayday calls and transmitted the grid coordinates of their forced landing area. Just before touchdown, CW4 Coleman applied aft cyclic and the remaining collective pitch, landing his aircraft with minimal ground run in a clearing within five feet of a large tree stump in 6-degree forward sloped terrain. The aircraft finally terminated with two large trees within six feet of the rotor system.

MR. ROBERT M. GUSTAFSON
LEAR SIEGLER SERVICES, INC.
JUNE 28, 2005
OH-58C

In an OH-58C, during climbout from a simulated engine failure with a non-rated student pilot on the controls, the engine literally exploded. With an "arm full of collective" climbing through 220 feet AGL, the engine explosion forced both crewmembers against their shoulder harnesses. Mr. Gustafson immediately confirmed engine failure indications, entered autorotation, turned 180 degrees while maintaining airspeed and rotor RPM in the turn and selected a suitable landing area. As the aircraft approached 100 feet AGL, Mr. Gustafson identified and maneuvered his aircraft to a small area within the landing area with the least slope. Mr. Gustafson initiated a decelerative attitude and noticed a berm obstructing his intended touchdown area. He increased collective to extend glide distance and touched down sliding six feet in an 8-degree sloped area, minimizing damage to the aircraft.

LTC ANTHONY K. SUTTER
1ST AVIATION GROUP (PROVISIONAL)
GEORGIA ARMY NATIONAL GUARD
NOVEMBER 18, 2005
UH-1V

At 10,000 feet MSL while performing a maintenance test flight, LTC Sutter and his crew noted the engine would not pass the turbine engine analysis check. LTC Sutter began the descent to return to home airfield. Passing through 8,000 feet MSL, the crew experienced a series of compressor stalls that lasted about 10 seconds. The crew noticed fluctuations in engine and rotor indications, followed by engine failure with engine, transmission and rotor indications dropping to zero.

LTC Sutter entered autorotation, located Jackson County (Ga.) Airport and headed toward it. He instructed the copilot in the left seat to transmit a mayday call, for the crew to lock their shoulder harnesses, and secure any loose items. As the aircraft passed through 5,000 feet MSL, LTC Sutter instructed the copilot to attempt an engine restart without success.

During their descent, the copilot continued to make radio calls while the crew cleared the aircraft for landing and continued to secure loose items. LTC Sutter manipulated the flight controls during autorotation, keeping potential suitable landing areas in sight until he was sure he could land at Jackson County Airport. As he approached the runway, LTC Sutter applied aft cyclic and collective, touching down on the runway centerline and sliding about 40 feet. Postflight inspection revealed no further damage beyond compressor stall damage to the engine.

CW2 STEVEN K. HUITRON (PC) AND CPT JOHN B. DAVIS (PI)
2ND SQUADRON, 6TH CAVALRY, 25TH INFANTRY DIVISION (LIGHT)
SCHOFIELD BARRACKS, HI
FEBRUARY 23, 2006
OH-58D(R)

After successful completion of close combat attack (CCA) engagements in support of a convoy live-fire exercise, the team of two aircraft maneuvered to re-attack the target. At about 100 to 200 feet AGL and 40 to 50 KIAS, CW2 Huitron (PC) initiated a CCA maneuver, firing three rockets that impacted the target area. CW2 Huitron fired a final rocket at his target and then heard an audible explosion, causing the aircraft to immediately experience extreme control stiffness/feedback and severe vibration. The aircraft rolled right, rotor RPM drooped and several caution/warning tones sounded. The aircraft vibrations were severe enough to inhibit the crew from reading the multifunction displays to properly identify the warning messages.

Unsure of the failures he had, CW2 Huitron briefly entered a power-on autorotative descent. Meanwhile CPT Davis coordinated with the PC and jettisoned the right rocket pod and transmitted a mayday call to the range control tower. CW2 Huitron realized the engine had not failed, so he applied power and chose a suitable landing area to his front inside the impact area. The planned landing area was by a small creek bed surrounded by 10-foot trees with large lava rocks throughout. As he raised the collective for landing, one damaged main rotor blade caused increased severe vibrations, which brought CPT Davis on the controls at 10 to 15 feet AGL to assist in aircraft control. With both pilots on the controls, the aircraft touched down avoiding several trees.

Postflight inspection and accident investigation revealed the damaged rocket exploded immediately after firing, veered into a main rotor blade and caused a complete compromise of the upper-aft aluminum covering.

CW4 STEVEN ROGERS (MTP) AND CW4 SCOTT CAMERON (PI)
ARMY AVIATION SUPPORT FACILITY NO. 1
WISCONSIN ARMY NATIONAL GUARD
MARCH 14, 2006
UH-1V

While conducting a maintenance test flight TEAC, the engine failed. Passing through 7,100 feet AGL at 70 KIAS with a maximum torque of 48 pounds applied, a loud bang was heard from the engine. CW4 Rogers, the maintenance test pilot, stated, "This is not good," noting all the needles going to zero. CW4 Rogers immediately entered autorotation and instructed CW4 Cameron to place the governor and transponder switches to the emergency position. CW4 Cameron noted the rotor RPM building from 250 RPM to the low green range of 284 to 300 RPM and began looking for a suitable landing area. The terrain in the area was a mixture of hills and forests with fields interspersed throughout the area. The crew elected to land their aircraft in an open field at the crest of a hill. CW4 Rogers noticed the engine was not recovering with the governor switch in the emergency position, so he closed the throttle and turned the fuel switch off, stopping fuel flow to the engine. CW4 Rogers made a 90-degree turn to the right, aligning the aircraft with the selected landing area, turning again to complete the approach into the wind.

During the descent, the crew notified Milwaukee (Wis.) approach control and their base operations of the emergency situation and approximate location of landing. CW4 Rogers decelerated at 100 to 110 feet AGL, and terminated the maneuver by sliding about 10 feet on an open field at the crest of a hill. Postflight inspection revealed three large exit holes in the right side of combustion chamber and damage to the tail rotor.

MR. HERSCHEL M. HICKS
LEAR SIEGLER SERVICES, INC.
JUNE 6, 2005
TH-67A

In a TH-67A at 5,000 feet MSL during instrument flight training in instrument meteorological conditions with a nonrated student pilot on the controls, the crew experienced an engine failure. The instructor pilot, Mr. Hicks, immediately took the controls, confirmed engine failure indications, double-checked the throttle had not been inadvertently rolled off and initiated autorotation. Still IMC, Mr. Hicks reduced airspeed to 65 knots and turned to the southwest, hoping to find suitable landing terrain. He then advised air traffic control of his emergency situation. Breaking through the clouds at 3,600 feet MSL with his N1 oscillating between 64 and 72 percent, Mr. Hicks selected a landing site. Realizing he would not make the landing site, he completed a 360-degree turn to lose altitude. Aligning with the landing direction, he turned to avoid large electrical distribution lines. Clearing the power lines, he adjusted his airspeed to increase glide distance past a large gully, completing his autorotation and sliding approximately six feet without further damage to his aircraft. As a contract instrument instructor pilot, Mr. Hicks had not conducted a touchdown autorotation since his TH-67A qualification nearly three years before. ♦

Broken Wing Award Nomination Requirements

CW4 JON J. STURNICK
U.S. ARMY COMBAT READINESS CENTER

As the new Broken Wing Award manager here at the U.S. Army Combat Readiness Center, I'd like to offer some assistance regarding the submission of nominees for the award. Broken Wing Award submissions vary in content and often do not demonstrate outstanding or extraordinary airmanship. To ensure the individuals you are nominating for the award are recognized for their exceptional actions, take a minute to review the criteria below.

Individuals performing authorized aircrew member flight duties on behalf of the Army while on a DOD mission are eligible for the Broken Wing Award. The aircrew member must have, through outstanding airmanship, minimized or prevented aircraft damage or injury to personnel during an emergency situation. An aircrew member might also have shown extraordinary skill while recovering an aircraft from an in-flight emergency situation. If more than one crewmember contributed to the successful recovery from the emergency, each of those involved should be considered for nomination. Emergencies resulting from enemy action are not excluded from consideration; however, an emergency will not be considered for an award if:

- It is self induced.
- It actually occurs during a simulated emergency requiring no added skill to land the aircraft successfully.
- It occurs because of noncompliance with published regulations or procedures.
- It is determined no emergency actually existed.
- In the panel's opinion, a lack of discipline or aviator judgment may have induced the emergency.
- The aircraft was in a phase of flight with no unfavorable circumstances to prevent a safe landing.

The Broken Wing Award Panel, which is normally comprised of five Master Army Aviators, will consider the circumstances involved in the incident, including the individual and crew experience, the environment and the nature of the emergency. A majority vote of the panel equals a selection or nonselection. If the panel recommends nonselection, the unit is contacted through the unit POC noted on award submission, asking for additional information or acceptance of the panel's recommendation. Selected and nonselected submissions are then forwarded to the Director of Army Safety, the commanding general of the USACRC, for his approval or disapproval.

Nominations should also contain the following information:

- Full name, rank and crew duty position of the person actually on the controls during the emergency.
- Date, time, location, above ground level altitude, density altitude, wind conditions (direction and velocity), visibility, illumination and gross weight at onset and termination of the emergency.
- Mission type, design and series of the aircraft involved.
- Type of mission.
- Phase of flight when the emergency occurred.
- Terrain and obstructions over which the emergency occurred.
- Concise description of the emergency from onset and recognition to termination, including action taken by the nominee to cope with the emergency and what was done to recover from the emergency or minimize damage or injury. The circumstances surrounding the occurrence must be documented to show the skill, knowledge, judgment and technique required and used in recovering from the emergency.
- Drawings, photographs and other supporting documentation if available.
- A copy of the applicable accident report.
- Initiator contact information, including an e-mail address and telephone number.

The significance of the Broken Wing Award requires careful thought and analysis, and the award panel must balance the Army's interest to both recognize deserving individuals and protect the integrity of the award. Give your nominees the opportunity they deserve to be recognized for their outstanding airmanship by taking advantage of these helpful hints. Leading on the Edge! ♦

FY06 Aviation Safety Performance Review

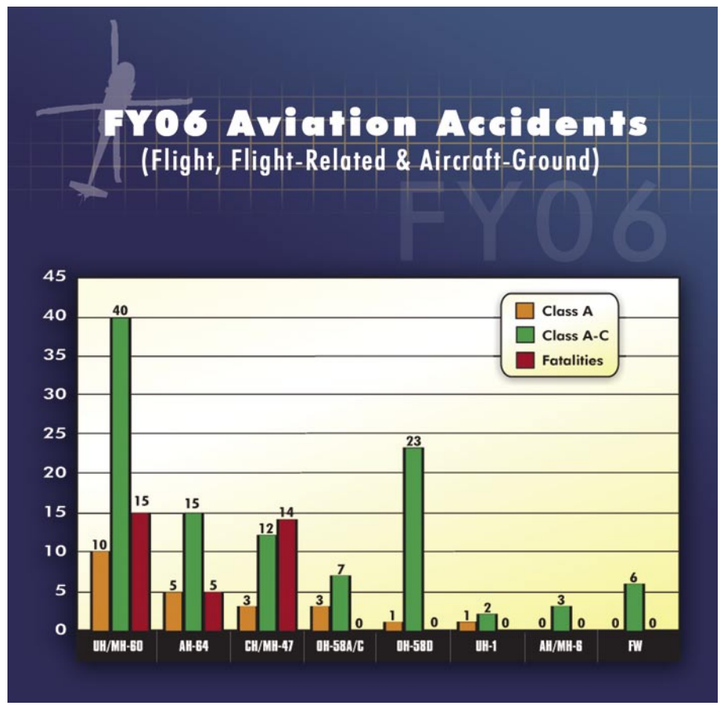
CHARISSE LYLE
U.S. ARMY COMBAT READINESS CENTER

It's time to see how we've done this fiscal year (FY). Army Aviation experienced 108 Class A through C manned aircraft accidents in FY06, a decrease of 16 percent from last year. We sustained 23 Class A accidents, 26 percent less than FY05. There has also been a substantial decrease in flight accident rates from last year. The Class A accident rate decreased 41 percent, from 2.66 in FY05 to 1.56 accidents per 100,000 flying hours in FY06. The Class A through C accident rate decreased 25 percent, from 10.02 to 7.56. However, the number of Soldiers killed each year was the same (34 deaths).

The Army continues to be involved in high-risk operations, particularly in support of Operations Enduring Freedom and Iraqi Freedom (OEF/OIF). Sixty-one percent of the FY06 Class A accidents and 79 percent of the fatalities occurred in theater. The OEF/OIF fatal accidents included two collisions with the ground, a collision with water, two accidents where a Soldier passenger released his seatbelt prior to touchdown and fell out of the aircraft, a MEDEVAC accident in which the hoist failed, a midair collision, and a two-wheel pinnacle landing that ended in a crash.

AIRFRAMES

The chart below compares the number of accidents and fatalities for each aircraft type involved. Highlights of these accidents follow.



UH/MH-60 BLACK HAWK

The Black Hawk community had the largest number of accidents in both the Class A and Class A through C categories and the most fatalities. There were four accidents in which a Soldier passenger fell out of the Black Hawk in flight. All but one occurred in theater. Two of these cases happened during a brownout-induced go-around when the Soldiers released their seatbelts before landing. Another occurred when a Soldier prematurely exited the aircraft prior to touchdown at night and fell over 20 feet to his death. One Soldier fell out of the aircraft during cruise flight. There was also a MEDEVAC mission in which the hoist failed, causing two Soldiers to fall to their deaths.

There were three Black Hawk accidents, all in theater, in which the aircraft crashed while landing in brownout conditions. Two involved aircraft on MEDEVAC missions. One accident accounted for over half of the total Black Hawk fatalities. The accident aircraft was Chalk 2 in a two-ship formation, performing a passenger transport mission under night vision goggles (NVGs) when, for unknown reasons, the aircraft struck the ground at an estimated 105 knots indicated airspeed in a nearly level attitude. Eight Soldiers and four civilian contractors were killed. Prior to the accident, the sky was overcast with zero natural illumination. The flight had deviated south of the planned route to take advantage of towns that were well lighted. Immediately before the crash, the accident aircraft was in a right trail formation and moved from the right side to the left side of Chalk 1. While the aircraft was not equipped with a flight data recorder or cockpit voice recorder to reveal the actions of the crew, it is possible that when Chalk 2 moved from the right side to the left of Chalk 1, they lost sight of Chalk 1 in the ground lights. The crew could have become distracted looking for Chalk 1 and failed to notice their descent.

Another catastrophic accident involved an unaided visual meteorological conditions takeoff from a pinnacle over a lake in the desert during a period of sunlight transition (49 minutes after official sunset). The pilot reportedly experienced spatial disorientation and the aircraft impacted the water and came to rest inverted, killing two crewmembers.

There were six Class B and C accidents in which the UH/MH-60 rotor blades struck an object (parked aircraft, light pole, etc.) while ground taxiing.

AH-64 APACHE

The Apache community had five Class A accidents and five fatalities during this time period with three occurring in theater. In one fatal accident, the aircraft impacted the ground during an aerial gunnery iteration of diving rocket fire. Both crewmembers sustained fatal injuries and a postcrash fire ensued.

A midair collision occurred at night under NVGs as the wing aircraft of a two-ship AH-64D team was attempting to reestablish position with lead in a combat spread formation. As trail converged on lead,

trail's tail wheel struck lead's main rotor system. The lead aircraft crashed, destroying the aircraft and fatally injuring both pilots. The trail aircraft sustained significant damage but was able to land safely. Although not deemed contributory in this case, the existence of city lights may have degraded trail's ability to visually acquire lead because the trail aircraft was stacked above the lead aircraft. A technique that prevents possible confusion with ground lights is stacking down while flying in the presence of city lights under NVGs. This places the lead above the trail aircraft and enables trail to see lead against the sky.

Two Class A accidents occurred during quick reaction force (QRF) combat missions. In one case, the crew took off before completing all pre-combat checks. The pilot in command (PC) was attempting to fly the aircraft while distracted by other cockpit duties that should have been accomplished before takeoff. The co-pilot gunner was optimizing his TADS and focusing his NVGs after takeoff. Neither pilot noticed their aircraft was in a slight descent prior to ground impact. The PC was fatally injured.

While performing a day QRF mission, the PC placed the aircraft into an abrupt, steep, descending unrecoverable turn to avoid another aircraft in the flight. It is suspected the PC was focused on something other than flying (possibly inside the cockpit to assist the pilot who was having a problem with the navigation system), and was startled when his pilot alerted him of their close proximity to the other aircraft. This probably precipitated a reflexive reaction by the PC. Both crewmembers sustained injuries.

CH/MH-47 CHINOOK

The CH/MH-47 community had three Class A accidents and 14 fatalities. There were two Class A accidents that occurred during the execution of pinnacle landings. In the first, the aircrew was conducting a night pick-up zone (PZ) extraction using AN/AVS-6(V)3 NVG in mountainous terrain. After successfully conducting a pinnacle approach, the PC hovered the aircraft rearward to conduct a two-wheel landing. The aft rotor system struck a tree on the left side of the aircraft and broke apart, causing loss of aircraft control. All 10 onboard were fatally injured.

In the second accident, the aircraft became unstable during a pinnacle landing, overturned onto its right side, and descended down slope. The aircraft was destroyed in the postcrash fire, but fortunately the entire crew was able to egress with survivable injuries.

An MH-47G struck a TV reception tower during flight in deteriorating weather conditions, broke apart and descended to ground impact, resulting in four fatalities.

There were seven Class C accidents involving inflight part or component detachment (cockpit doors, aft pylon access panel, transmission butterfly cowling, cowling clamshell, etc.). Two of these resulted in aircraft damage.

OH-58D KIOWA WARRIOR

The KW community had only one Class A accident and no fatalities. However, it had 23 total accidents in the Class A through C category.

We know our Warriors live and operate on the leading edge, but they should not be alone on that Edge. Leaders must be there, engaged and accountable. If leaders had gotten involved sooner, these Soldiers might be here today.

There were seven OH-58DR accidents involving full authority digital electronic control (FADEC) manual throttle operations. One resulted in Class A damage when the aircraft impacted the runway during a manual throttle demonstration. Class B damage was incurred in one accident due to engine overtorque. The other five resulted in Class C engine overspeeds. There was also a reported Class B FADEC failure.

Class C damage resulted from mast bumping during a training autorotation. There was also a Class B wire strike which occurred in theater.

OH-58A/C

There were seven Class A through C accidents involving the OH-58A/C: a midair, a wire strike, a collision with the ground due to settling with power, a hard landing during a practice autorotation, two engine overtemps, and a loss of power of unknown origin and subsequent descent to ground impact.

AH/MH-6

There were three Class B or C accidents: two engine failures and a hard landing during touchdown autorotation training.

UH-1

There were two UH-1 accidents during FY06, a Class A collision with the ground with no fatalities (unknown cause), and a Class B engine failure.

FIXED WING

There were six Class B or C fixed-wing accidents. These included two bird strikes, a C-12 landing gear collapse during touchdown, a hand injury while opening the C-12U cabin air-stair door (door's hydraulic dampener upper mounting bolt sheared and the door opened full force, catching the crewmember's finger), an engine overtorque/overload, and aircraft damage during an operational brake test.

SUMMARY

Statistically, we did better in FY06; however, the reality is that 34 people died. This is an unnecessary and heartbreaking loss of precious lives. Although releasing their seatbelts before touchdown will allow Soldiers to egress quicker, the risk of accidental injury must be considered. Two Soldiers died and two suffered serious injuries because they fell out of the aircraft before it landed. One Soldier suffered serious injuries when he released his seatbelt prematurely and was ejected from the helicopter during the crash sequence. His fellow Soldiers, who were restrained by their seatbelts, sustained only minor injuries in the same accident.

We know our Warriors live and operate on the leading edge, but they should not be alone on that Edge. Leaders must be there, engaged and accountable. If leaders had gotten involved sooner, these Soldiers might be here today.

The U.S. Army Combat Readiness Center (USACRC) has developed a number of useful tools to assist leaders and individual Soldiers in assessing the hazards found on the flight line, in the cockpit, or on the battlefield. These tools include Preliminary Loss Reports, the Risk Management Information System, the Accident Reporting Automation System, and the Army Readiness Assessment Program, all of which can be found on the USACRC Web site at http://crc.army.mil.

Engaged leaders save lives. What you do right now impacts your troops. Let's turn the arrow down for FY07 by Leading on the Edge, staying engaged with our Soldiers, and never leaving a fallen comrade. ♦

Editor's note: These statistics are current from the USACRC database as of 15 November 2006. Delayed reports and follow-up details on preliminary reports could change the statistics and findings.

2007 AVIATION GUNNERY WORKING GROUP

All aviation master gunners, door gunners, commanders, and S-3s are invited to attend the Gunnery Working Group at Fort Rucker, Ala., on Jan. 16-19, 2007. The Working Group is hosted annually by the Directorate of Training and Doctrine. If your unit would like to present a briefing this year, contact CW4 Vance Paul at (334) 255-2755 or e-mail vance.paul@us.army.mil. Timeline for briefing submission and RSVP is NLT Jan. 5, 2007. The official invitation will be posted on AKO Gunnery and the DOTD Tactics Division Web portal **http://aviation.portal.inscom.army.smil.mil.**

ARAP: THE INSIDE LOOK (ONE YEAR LATER)

SAM REYNOLDS
U.S. ARMY COMBAT READINESS CENTER

"Whoever is responsible for this program, I think they hit a homerun. The feedback is terrific, it's the best I've seen yet as it compares to other assessments."

—COL, Installation Management Agency

On Oct. 5, 2006, the Army Readiness Assessment Program celebrated its one-year anniversary. ARAP is a successful program used by battalion commanders to gauge the safety climate within their organizations.

This past February the Secretary of the Army, the Honorable Francis J. Harvey, and the Army Chief of Staff, GEN Peter J. Schoomaker, signed a letter mandating all battalion commanders enroll in ARAP within the first 90 days of taking command and again after completing 12 to 13 months of command. Why does the Army's leadership have such a vested interest in ARAP? Simply put, they see the immediate benefits battalion commanders can glean from a program that provides critical information to prevent accidents, change unit culture and contribute to the overall success of the unit.

Personnel within these battalions who take the assessment appreciate ARAP because of the anonymity it offers. ARAP gives individuals the opportunity to tell their battalion commanders about things that are going well within the unit as well as discuss what's not going as well without fear of retribution. Commanders like ARAP because it gives an immediate indicator as to how well their unit is performing and its likelihood of having a severe mishap that results in loss of life or property.

Such mishap indicators aren't all ARAP has to offer, however. Expert CRC staff members also outbrief and provide leaders with tools that have proven effective in mitigating mishaps. And that's important, considering units scoring in the bottom 25 percent are four times more likely than the top 25 percent to experience a Class A mishap. Additionally, data show the cost of lost equipment is 14 times greater than units scoring in the top 25 percent.

Another reason battalion commanders like ARAP is the mitigation process embedded in the program. Once a commander has been outbriefed, he is required to backbrief his higher commander. This step informs the higher commander of the unit's status and also involves them in the process, allowing them to apply resources and guidance as needed.

ARAP is a 63-question assessment that assesses the safety climate in an organization by looking at five focus areas:

- Process Auditing—Identifies hazards and offers suggestions to help correct problems.
- Reward Systems—Assesses the unit's program of rewards and discipline to reinforce proper behavior and correct risky behavior.
- Quality Control—Places emphasis on high standards of performance.
- Risk Management—Assesses health of the unit processes.
- Command and Control—Assesses leadership, communications and policies as they relate to Composite Risk Management.

Since the inception of ARAP, more than 1,286 battalion commanders have registered for the assessment. This equates to more than 417,470 service members registered in the program, with completed assessments totaling 414 (32.19 percent) of the 1,286 units in ARAP—359 active battalions, 53 Reserve, and two National Guard units.

COMMENTS FROM THE FIELD

An e-mail is sent automatically to the commander approximately three weeks after a battalion commander has been outbriefed. The following questions are asked in the e-mail:

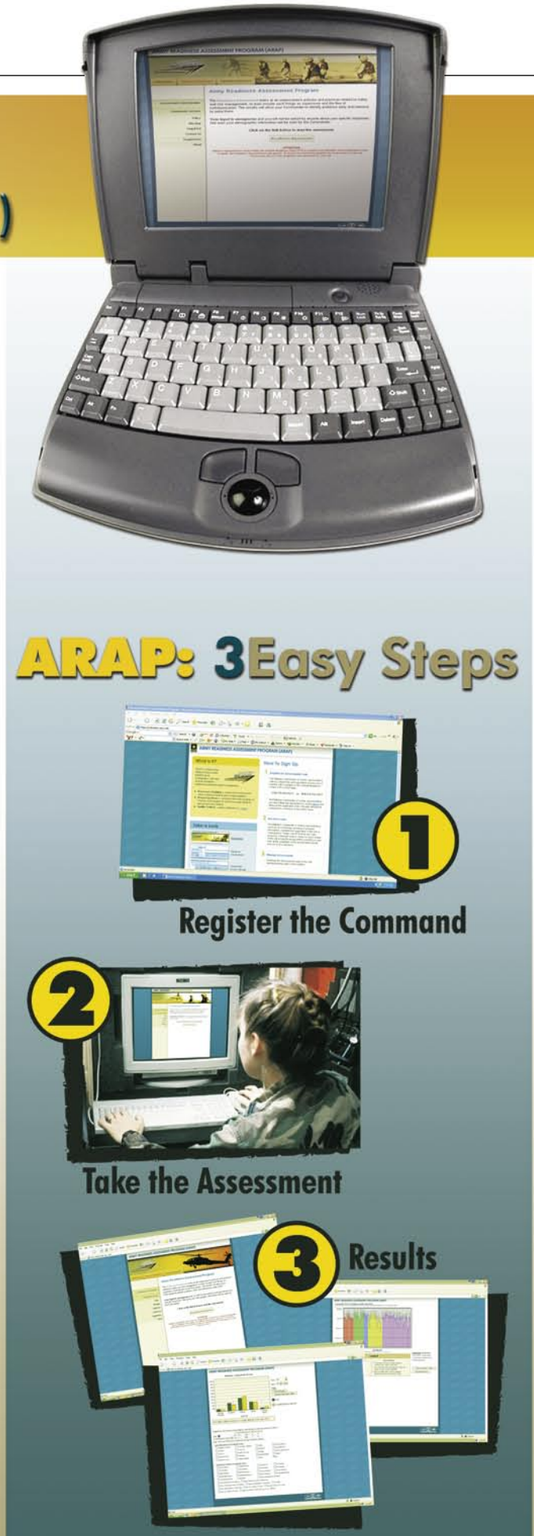
1. What did the assessment highlight about my unit that I didn't already know?
2. What did I think I knew and did the survey confirm it?
3. What action did you take due to the information you received from ARAP?
4. I was able to apply the following services and tools from the CRC …

Listed below are sample responses received from the field:

- **LTC, Aviation battalion:** "The assessment highlighted the fact that our leaders were not providing command guidance down to the lowest levels. Many Soldiers indicated they were not provided intelligence updates, and they were not being briefed on current operations. That made us dig deeper to determine what else was not making it all the way down the chain, and we implemented checks to ensure this was corrected.

"At the time of the survey, we had just lost an aircrew to surface-to-air fire. The survey confirmed that our pilots had great consternation to operate during daylight hours until we received the necessary aircraft survivability equipment to defeat these missiles. We adjusted our tactics, techniques and procedures until the ASE was installed a few months later."

- **LTC, Aviation battalion:** "Thank you for the professional outbriefing today and for squeezing me into your schedule. I find the results to be very useful and look forward to digging through them over the weekend. My assault aviation battalion activated only five months ago, and we have been running with scissors all summer. The results of this survey are very timely in that it is time for us to take our safety program to the next level. We deploy



to Operation Iraqi Freedom next week and will push down the results and actions to get better as part of our RSOI in Kuwait."

• **LTC, Aviation battalion:** "This is a lot more than I thought I would receive—an eye opener! It seems our OPTEMPO has greatly affected the service members."

• **LTC, Aviation regiment:** "This is the best assessment program I have seen yet in my career."

• **LTC, special troops battalion:** "This is good stuff, a great product. It gives me a much better understanding of my organization and areas we should address. I appreciate the products and services provided."

• **COL, Installation Management Agency:** "Whoever is responsible for this program, I think they hit a homerun. The feedback is terrific, it's the best I've seen yet as it compares to other assessments."

• **COL, U.S. Army Reserve:** "This was a very enlightening program. I am totally impressed with the depth and insight gained from this survey. Frankly, I didn't know this survey provided this much information and excellent areas for improvement. Thank you!"

• **LTC, Aviation battalion:** "The Army should put up or shut up. Why don't we have an MTOE/TDA safety officer in every battalion-level organization? This should be a sought-after position, a volunteer duty, desired, career-enhancing, career progression and school-trained."

• **LTC, Air Defense Artillery battalion:** "Great program, looking forward to reviewing the data and identifying areas to address."

• **LTC, Military Police battalion:** "Thanks, this is a lot of information that I've been waiting for and we will take the time to digest and then disseminate the information to the companies. The shell brief provides a definite framework and direction to present this information."

• **LTC, Armored Cavalry:** The ARAP program is great. I've taken some of the suggestions in the courses of action from what we discussed and applied them to the squadron during my gunnery density, which I just completed. I will do the same for my field training exercise next month. The COAs helped me improve #50 and the questions associated with that one."

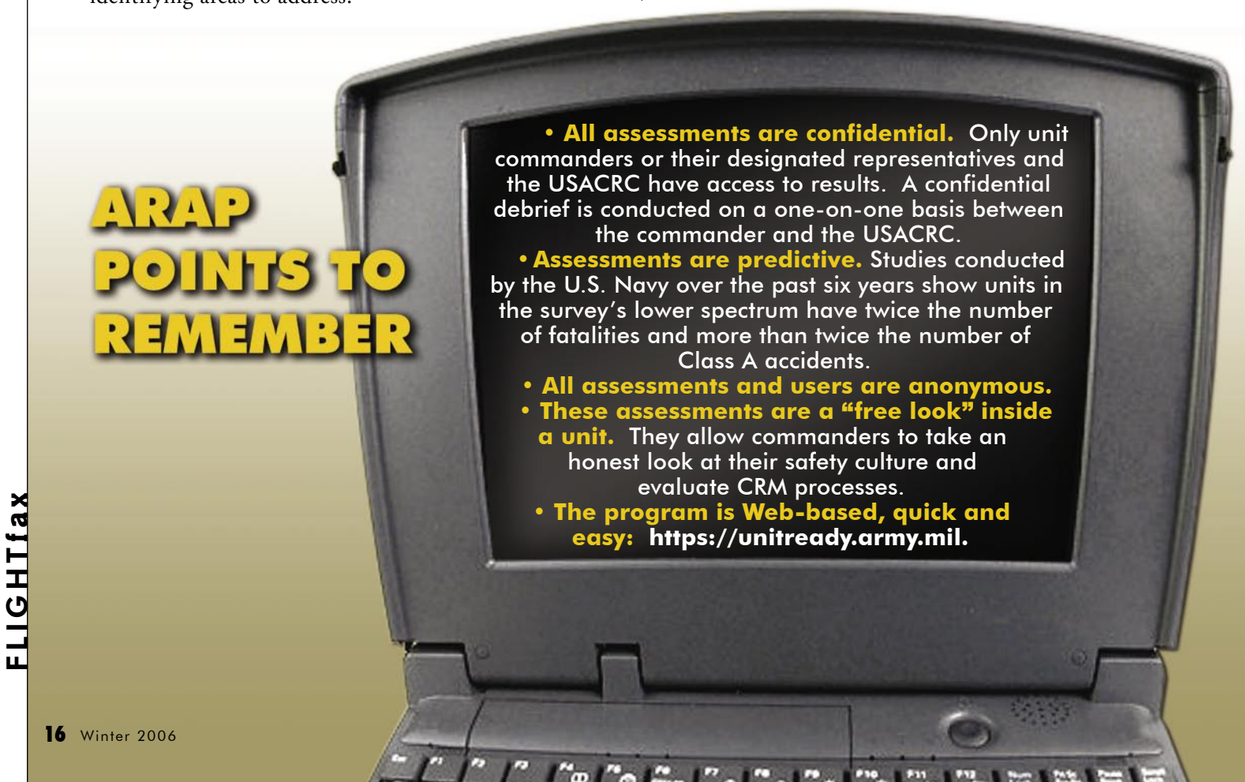
• **LTC, Intelligence battalion:** "As the commander, this looks very good, very powerful, very useful, and very valuable."

• **COL, Installation Management Agency:** "This is very good, very powerful, and I see it being very useful. There is more here than I expected."

• **06-level commander:** "Procedures you have set in place to maintain the anonymity of the Soldiers, as backbriefed to me, lead me to believe we are getting reliable feedback from the Soldiers."

• **LTC, Engineer battalion:** "I'm looking forward to reviewing the data and analyzing my staff."

For more information on ARAP or to schedule an assessment for your battalion, contact Mr. Sam Reynolds, ARAP Program Manager, at 334-255-3901/9362 or by e-mail at samuel.reynolds@crc.army.mil or arap@crc.army.mil. ♦



Accessing the AIRCREW SYSTEMS PROGRAM OFFICE Web Site

JOHN POPOVICH
DIRECTORATE OF COMBAT DEVELOPMENTS
U.S. ARMY AVIATION WARFIGHTING CENTER
FORT RUCKER, ALA.

The technical manual for the AIRSAVE vest is easy to locate once you realize it's a Navy product. The TM is located on the PMA-202 Aircrew Systems Program Office Web site. Aviation life support equipment technicians responsible for maintaining the AIRSAVE vest can visit this site to download the TM, as well as review video clips.

To access the PMA-202 Aircrew Systems Program Office Web site, go to **http://pma202.navair.navy.mil.** If you are using a government computer and a Common Access Card, click on "If you have a PKI certificate ... Go to the Aircrew Systems (PMA-202) Web Site Click Here." This first link is the PMA-202 site. To access this page, you are required to have a public key infrastructure certificate imbedded in your CAC. If you do not have the certificate, you will not be able to access the PMA-202 Web site. If your CAC does not have a PKI certificate embedded or you want to request one for your computer, there is a link at the bottom of the Web page where you will find information on how to obtain the PKI certificate. Your CAC may already have a PKI certificate imbedded, so check with your local information technology department or the issuing agency. If you have a PKI certificate, click the link for the PMA-202 Web site and you will be transferred to **https://home.navair.navy.mil/pma202.**

Once you get to the PMA-202 home page, you will have to log in to access the TMs. Click "Login" at the top of the page, fill in your e-mail address and password and click the "Login" button. If you do not have an account, click the "Join" link, fill out the form and click the "Join" button.

Once logged in, you will see a menu bar with "Home | Team Sites | Team Applications | Maintenance Data | Naval Messages." Move the cursor over "Maintenance Data" and a pop-down menu will appear. Click on "NAVAIR Maintenance Manuals." On the next page, click on "NAVAIR 13-1-6.x Manuals & IRACs." On the next page, click on the "NAVAIR 13-1-6.7-4" link to view the Protective Assembly, Aircrew Survival-Armor (A/P22P-18(V)) manual (TM 1-1680-360-12). Applicable changes, if any, will be listed in a select box to the right of the manual link. If you have a slow connection, you can download the TM a chapter at a time by clicking on the "Chapters" link in the right-hand column.

Further information regarding the AIRSAVE vest may be available by going to the AIRSAVE Team Site. To do this, move the cursor over "Team Sites" in the menu bar. On the next pop-down menu, mouse over to "Customer Support," then "AIRSAVE" and then click on "Home."

If for some reason the pop-down menus do not work on your computer, you can find the same links at the bottom of the page.

For more information, contact Brian Smith at 901-937-1732 or by e-mail at brian.smith1@navy.mil. ♦

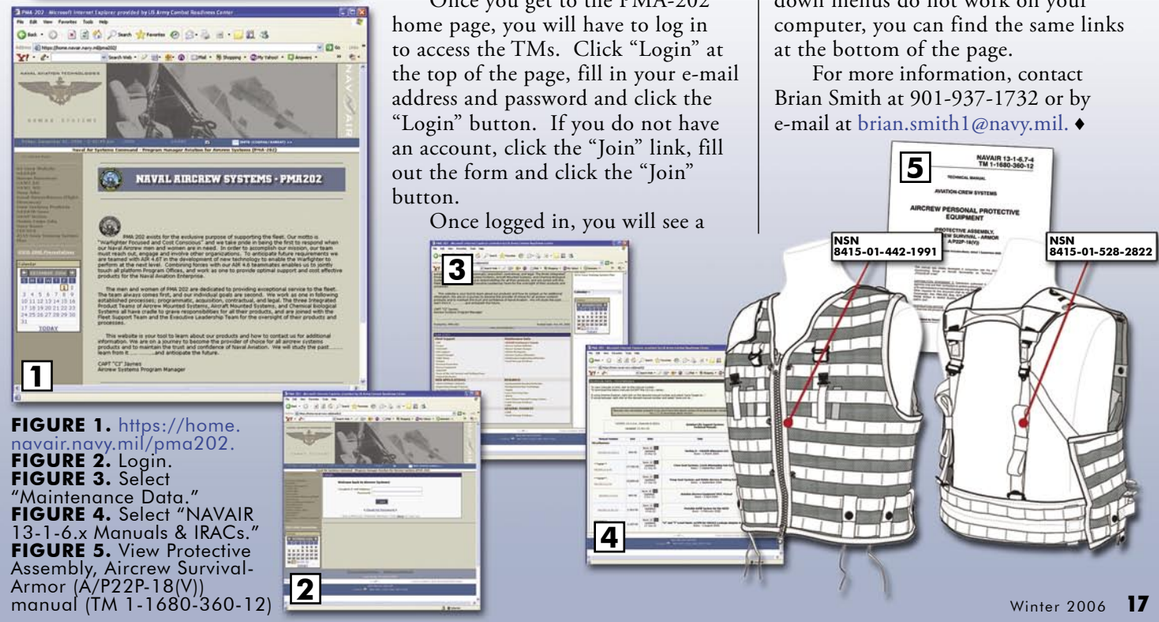


FIGURE 1. https://home.navair.navy.mil/pma202.
FIGURE 2. Login.
FIGURE 3. Select "Maintenance Data."
FIGURE 4. Select "NAVAIR 13-1-6.x Manuals & IRACs."
FIGURE 5. View Protective Assembly, Aircrew Survival-Armor (A/P22P-18(V)) manual (TM 1-1680-360-12)

Standardization Communication

STACOM Message 06-08

CLARIFICATION OF THE AIRCREW TRAINING PROGRAM COMMANDER'S GUIDE TC 1-210

The Directorate of Training and Doctrine (DOTD) recently published the new Training Circular (TC) 1-210, *Aircrew Training Program Commander's Guide to Individual, Crew, and Collective Training,* with an implementation date of 20 June 2006. This commander's guide has generated many inquiries from the field, and this STACOM should assist with interpretation of the most frequently asked questions. If errors are found or there are recommended changes for TC 1-210, submit a DA 2028-2 to DOTD. If individuals would like clarification not covered in this STACOM, please contact the Directorate of Evaluation and Standardization (DES).

ISSUE 1: Paragraph 1-41 discusses the PC requirements for company commanders, and paragraph 1-46 allows the brigade commander to waive this requirement if the company command time is less than 12 months.

CLARIFICATION: In the event a company commander has not attained PC status and he/she has less than 12 months remaining in command after 20 June 2006, the brigade commander may waive PC requirement in accordance with paragraph 1-46.

ISSUE 2: Paragraphs 1-49 through 1-55 discuss PC requirements for active duty warrant officers with a skill qualification identifier (SQI).

CLARIFICATION: To determine if paragraphs 1-49 through 1-55 apply to those aviation warrant officers described, the following will be considered: Does that aviation warrant officer fill a relevant SQI modified table of organization and equipment (MTOE) position in an aviation unit? If so, the following three instances determine application:

1. Aviation warrant officers (i.e., instructor pilots or maintenance pilots) who hold an SQI that is only relevant to their aircraft type do not have to comply with the PC requirement if that aviator transitions to a new aircraft type or category primary aircraft.

2. Aviation warrant officers (i.e., rotary-wing instrument examiner (IE) or fixed-wing IE) who hold an SQI that is relevant to their aircraft category do not have to comply with the PC requirement if that aviator transitions to a new aircraft category but must still comply if he or she transitions to a new aircraft type.

3. Aviation warrant officers (i.e., aviation safety officers or tactical officers) who hold an SQI that is valid to aircraft type and category must comply regardless of transition to a new aircraft type or category.

ISSUE 3: Paragraphs 3-7, 3-8, and 3-9 refer to individual tasks, collective tasks, and crew training.

CLARIFICATION: For aircrew training program (ATP) purposes: All references to individual tasks (1000 series) are also known as base tasks; all references to crew tasks (2000 series) are also known as mission tasks; and all references to crew tasks (3000 series) are also known as additional tasks.

ISSUE 4: Paragraph 3-11 discusses the requirements for flight activity category (FAC)-level assignments.

CLARIFICATION: If a unit, such as a VIP flight detachment or a table of distribution and allowances unit, does not have a mission statement, mission essential task list, or an MTOE that supports the tactical employment of its assigned aircraft, the commander may designate unit aviators as FAC 2. Aviators with less than 2 years of aviation service are the exception and must be designated FAC 1.

ISSUE 5: Paragraph 3-39 discusses the requirements for the disposition of DA 4507-R, DA 4507-1-R, and DA 4507-2-R. Figure C-1 provides an example of the individual aircrew training folder (IATF).

CLARIFICATION: Figure C-1 and paragraph 3-39 are contradictory in reference to the DA 4507 series. Paragraph 3-39 is correct; the DA 4507 series will be maintained in the IATF until the completion of training.

ISSUE 6: Paragraph 5-28 discusses commander's evaluation considerations.

CLARIFICATION: When determining readiness level (RL) status of newly assigned aviators, if 1 year has passed since the completion of any element of an annual proficiency and readiness test (APART) (instrument evaluation, standardization evaluation, or operator's manual examination), that element must be completed before progression to RL 1. First utilization tour graduates of the Initial Entry Rotary Wing Course are exempt from this requirement.

ISSUE 7: Paragraph 3-22 provides four requirements for designation of RL 3.

CLARIFICATION: Add: "Crewmember has not flown in excess of 180 days."

ISSUE 8: Paragraph 4-49 discusses door gunnery and the qualification requirements of DA Pam 350-38, *Training Device Policies and Management,* for designated M60D/M240H.

CLARIFICATION: DA Pam 350-38 mandates that 90 percent of the designated M60D/M240H gunners have completed qualification according to FM 3-04.140, *Helicopter Gunnery,* and Table VIII within the past 12 months.

ISSUE 9: Paragraph 4-70 discusses requirements for local area orientation before RL 1 designation.

CLARIFICATION: Remove most demanding mode and substitute with: "Prior to progressing to RL 1, crewmembers must receive a local area orientation (day, night, and, if appropriate, NVD)."

ISSUE 10: Paragraph 4-9 discusses task and iteration requirements.

CLARIFICATION: Add the following to paragraph 4-9: Crewmembers must meet the task and iteration requirements listed on the critical task list (CTL). The commander determines any additional iteration needed based on crewmember proficiency. Commanders must include on the individual's CTL the night flight tasks that are required to accomplish the unit's mission. They also will specify annual NVD training, CBRN tasks, and flying hour and simulation device requirements per the appropriate ATM and AR 95-1. During his training year, each RL 1 crewmember must complete at least one iteration of each task on his task list in each of the modes indicated. The commander may increase these requirements as training and proficiency requirements dictate. Adjust these requirements if a crewmember is initially designated FAC 3 or RL 1 in his primary aircraft as follows:

- If more than 6 months remain in his training year, he must complete at least one iteration of each task in each of the modes indicated on his task list. The commander may increase this requirement.
- If less than 6 months remain in his training year, the crewmember will have no task and iteration requirements unless specified by the commander.

NOTE: A task iteration performed at night or while using NVD may be substituted for a day task iteration.

NOTE: If the crewmember is removed from RL 1 or FAC 3, the following apply:

(1) Training deficiency. A crewmember removed from RL 1 for a training deficiency must still meet all RL 1 ATP requirements. ATP requirements met while RL 2/3 will be applied to RL 1 requirements.

(2) Other than a training deficiency. A crewmember has until the end of the training period to complete ATP requirements. If a crewmember is removed from RL 1 or FAC 3 for other than a training deficiency before the end of the training period (for example, a permanent change of station departure), his ATP requirements no longer apply.

ISSUE 11: Paragraph 5-20 (note) discusses the requirements for standardization evaluation.

CLARIFICATION: Replace note with: "The standardization flight evaluation applies to RCMs and NCMs."

ISSUE 12: Paragraph 5-13 discusses post-accident flight evaluations.

CLARIFICATION: Add: "The type and nature of the evaluation will depend on the crew duties the RCM and/or NCM was performing at the time of the accident."

ISSUE 13: Appendix A provides guidance for Aircrew Coordination Training-Enhanced (ACT-E). Paragraph A-2 refers to the transition date for ACT-E.

CLARIFICATION: If contradiction exists between the TC 1-210 and the message published by DOTD (Immediate Action Change to TC 1-210 Aircrew Training Program, Commander's Guide, Aircrew Coordination Training-Enhanced (ACT-E)), the message takes precedence.

CLARIFICATION: The transition date for ACT-E is 1 December 2006.

Standardization communications (STACOMs) are prepared by the Directorate of Evaluation and Standardization (DES), U.S. Army Aviation Warfighting Center, Fort Rucker, AL 36362-5208, DSN 558-2603/2442. Information published in STACOMs may precede formal staffing and distribution of Department of the Army official policy. Information is provided to commanders to enhance aviation operations and training support.

SCOTT B. THOMPSON
COL, AV
Director of Evaluation
and Standardization

2006 Flightfax Index

Accident Briefs

Information based on preliminary reports of aircraft accidents

Class A

AH-64
D Model
• **Class A:** Both crewmembers suffered fatal injuries when the aircraft impacted the ground during a night diving rocket fire iteration and a postcrash fire ensued.

OH-58
A Model
• **Class A:** The aircraft contacted wires at 50 feet above ground level and subsequently landed hard, overturned and came to rest inverted. Both the pilot and civilian passenger egressed without injury. A postcrash fire ensued, destroying the aircraft.

AH-64
A Model
• **Class D:** During a rocket engagement, the aircraft was flown too low over the target area and was hit by either shrapnel or debris from the rocket impact. The incident resulted in a broken windshield above the co-pilot gunner's head.
D Model
• **Class D:** The aircraft returned from a training flight with damage to the UHF antenna on the underside of the aircraft tailboom. The antenna was struck from the front and pulled from its mounting, retained by only one screw. It is suspected the pilot allowed the aircraft to contact an object during a training flight where pinnacle landings were being conducted. The pilot was unaware damage had occurred until postflight inspection.
• **Class E:** While in formation flight at 120 knots 500 feet above ground level, the aircraft started to vibrate. The crew heard a loud pop, followed by increased vibration. The aircraft continued normal flight to landing and shut down. Maintenance inspection revealed one rotor blade had suffered extensive debonding.

CH-47
D Model
• **Class B:** The aircraft's main rotor blades contacted the tarmac when a deceleration was preformed during a roll-on landing.
• **Class C:** The aircraft experienced a structure failure of the left aft pylon access panel during flight, which allowed the panel door to open inadvertently, contacting the left engine tail cone. Both the left access door panel and left engine tail cone were damaged.
• **Class D:** While conducting night vision goggle training, an aft two-wheel landing was attempted on a concrete dam. The aft gear slid off the dam and contacted the left side of the ramp and dam.

MH-60
L Model
• **Class E:** During a combat multiship air assault operation, following transition to unaided flight, a crack was discovered in CPG's windshield. It was suspected the crack was the result of a small rock or other foreign object debris. Upon landing, the crack was inspected and it was determined the mission could not be continued. Maintenance replaced the windshield and returned the aircraft to service.

OH-58
D(R) Model
• **Class C**: The aircraft experienced an overspeed condition during a manual throttle operation landing. Engine replacement was required.
• **Class C:** The crew heard a loud report from the engine area and a subsequent FADEC DEGRADE cockpit indication and RPM decay. An emergency landing was executed, but the aircraft suffered damage to the lower wire strike protection system as it skidded on a slight downgrade.
• **Class D:** During low-level autorotation, the aircraft touched down well left of the centerline. The aircraft continued left and traveled into the sod, where the skids arrested movement and caused the tail to pitch up. The aircraft landed hard on the aft portion of the skids, causing the cross tube mounting bracket to be pushed up into the fuselage. The bracket was torn free from the mounting point at the front attachment site
• **Class D:** During simulated engine failure at a hover, the aircraft landed hard on the sod and bounced. The aircraft pitched up, digging the lower WSPS into the ground and causing the aircraft to pivot on the lower WSPS. The pilot then applied aft cyclic to keep the rotor blades from striking the ground. The aircraft impacted on the left aft skid, pushing the aft cross tube into the fuselage.

C-12
U Model
• **Class B:** A crewmember sustained a left-hand ring finger injury while attempting to open the cabin air-stair door for passenger offload. The door's hydraulic dampener upper mounting bolt sheared, and the door opened full force, catching the crewmember's finger.

ARMY AIRCRAFT LOSSES FY02 TO PRESENT*

	HOSTILE/NON-HOSTILE	COST
AH-64A/D.....	8/45	$1.116B
U/MH-60A/L.....	6/22	$191.8M
C/MH-47.....	6/13	$718.9M
OH-58D.....	8/21	$181.2M
Total	28/101	$2.20B

*As of December 5, 2006

Editor's note: Information published in this section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, contact the U.S. Army Combat Readiness Center Help Desk at 334-255-1390 or by e-mail at helpdesk@crc.army.mil.

SOMEONE ALWAYS KNOWS

Someone knows when their buddy sitting next to them is not wearing their seat belt, someone knows when their buddy buys a motorcycle and hasn't been to training, someone knows when their designated driver has a drink, and someone knows when their buddy cuts corners to get the job done...

Someone always knows...Don't just stand by if that "someone" is you. ENGAGE, do the right thing and prevent an accident from occurring. Protect your buddies and our combat power – BE AN ENGAGED LEADER.

Someone always knows

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own the EDGE
Leading on the Edge